1919 **TELEVISION (Electronic System)** **V Zworykin (USA)**

1927 **TELEVISION (Electronic System)** **P Farnsworth (USA)**

It was already recognised that a complete cathode-ray system provided the answer, but no experimental work was started and the idea lay dormant until, after going to America in 1919, Zworykin joined the Westinghouse Company. His major difficulty centred on the electronic camera tube. He, like Campbell-Swinton, had conceived the idea of charge storage by 1919. Zworykin lacked the necessary funds to carry his ideas forward into practical form at the time he conceived them, and it was several years before he could concentrate on their elaboration. Westinghouse took him on to their research staff but their laboratory devoted itself mainly to radio research, and, since Zworykin was given no freedom to pursue his ideas on television, he resigned to join a development company in Kansas. Returning to Westinghouse in 1923, he drew up an agreement whereby he retained the rights to the television inventions he had disclosed in 1919, while Westinghouse acquired the exclusive option to purchase the patents at a later date.

Philo Farnsworth was essentially an individual inventor who, though fortunate enough to find substantial financial backing, always retained his autonomy in research. Largely self-taught, he appears at an early age to have conceived a completely electronic system. He was of the type which prefers to work on a small scale with relatively simple equipment. Working in laboratories in Los Angeles and later in San Francisco he was able to demonstrate a complete electronic system in 1927, when he filed his first patent application, including his image dissector tube, which constitutes his most important inventive contribution After long-drawn-out patent interference proceedings, Farnsworth and Zworykin each received basic patents on their different systems of television transmission.

SOURCE: *The Sources of Invention* by J Jewkes, D Sawers and R Stillerman (London: MacMillan & Co.) p 385/6 (1958)

SEE ALSO: 'The history of TV' by G R M Garratt and A H Mumford *Proc. IEE; Part III A, Television* vol 99 (1952)